

UNCLASSIFIED

FY 2001 BUDGET REVIEW

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)		DATE: FEBRUARY 2000							
APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3		Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATION							
COST (MILLIONS)	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
TOTAL PROGRAM ELEMENT	25.651	22.920	23.082	23.399	24.610	26.270	27.644	Cont	Cont
#1: User-Source Link	3.859	2.789	0.000	0.000	0.000	0.000	0.000	0.000	6.648
#2: Rule-based Decisions	2.276	1.556	0.000	0.000	0.000	0.000	0.000	0.000	3.832
#3: Material Acquisition: Electronics	4.948	5.130	9.957	10.147	10.337	10.317	10.273	Cont	Cont
#4: Advanced Logistics Support	3.760	2.044	1.596	0.000	0.000	0.000	0.000	0.000	7.400
#5: Advanced Technology Integrator	1.842	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.842
#6: Intelligent Demand Manager	0.000	0.953	1.733	1.979	2.135	2.179	2.216	Cont	Cont
#7: Computer to Computer Negotiations	0.000	0.000	2.326	2.987	3.250	3.132	2.225	Cont	Cont
#8: Pay Per Use Logistics System	0.000	0.000	1.456	2.374	2.402	2.477	1.946	Cont	Cont
#9: Aging Aircraft Sustainment Technology	0.000	0.000	4.051	4.131	4.481	5.164	5.408	Cont	Cont
#10: Virtual Reality Medical Assembly	0.000	0.000	1.963	1.781	2.005	2.039	2.077	Cont	Cont
#11: Future Logistics R&D Requirements	0.000	0.000	0.000	0.000	0.000	0.962	3.499	Cont	Cont
#12: On Demand Manufacturing/CATT	7.036	6.523	0.000	0.000	0.000	0.000	0.000	0.000	13.381
#13: Gulf Coast Maritime Center	1.930	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.930
#14: Competitive Sustainment	0.000	0.982	0.000	0.000	0.000	0.000	0.000	0.000	0.982
#15: Defense Microelectronics Activities	0.000	2.943	0.000	0.000	0.000	0.000	0.000	0.000	2.943
<p>A. Mission Description & Budget Item Justification: The DoD logistics vision calls for providing flexible, cost effective and prompt materiel support, logistics information and services, achieving the leanest possible infrastructure and the employment of the best commercial and government sources and practices. The DLA Logistics R&D program will develop and demonstrate high risk, high payoff technology that will provide a significantly higher level of support at lower costs, than would be otherwise attainable. The DLA program is a key part of the DARPA/DLA Advanced Logistics Program. Focused Logistics is one of the five basic tenants of Joint Vision 2010. The DLA logistics R&D program contributes directly to achieving JV 2010's vision of logistics "support in hours or days versus weeks." The objective of the Advanced Logistics Program is a collaborative environment which will allow the Operations community (J3) and Logistics planning community (J4), TRANSCOM, and DLA to seamlessly interact on operations planning and execution of wartime operations. In addition, DLA will use the same system in peacetime to significantly reduce Logistics Response Time and reduce the cost of DLA operations while maintaining readiness.</p>									

UNCLASSIFIED

UNCLASSIFIED

FY 2001 BUDGET REVIEW

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE: FEBRUARY 2000
APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3	Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATION
<p>#1 USER-SOURCE LINK: Effort links DoD parts consumers with suppliers, enabling users to decide on price, quality, packaging, quantity, and ordering. Effort will significantly reduce DLA's overhead and inventory costs as more direct vendor deliveries will be attainable. The program provided the technical infrastructure for the DoD EMALL.</p> <p>#2 RULE-BASED DECISIONS: Automates decision processes in buying, cataloging and item management that are strictly rule-based, to increase turnarounds and decreasing labor costs. First thrust concentrates on procurement activities, followed by item management and cataloging functions.</p> <p>#3 MATERIAL ACQUISITIONS: ELECTRONICS: Will fund continued enhancement of Generalized Emulation of Microcircuits effort and continue the Advanced Microcircuit Emulation (AME) which started in FY 97. Program reduces weapons system support costs by providing an alternative to circuit board redesigns and lifetime buys. To date, GEM has delivered 14,000 microcircuits of 140 different types to 31 different weapon systems.</p> <p>#4 ADVANCED TECHNOLOGY LOGISTICS SUPPORT NETWORK (ATSN): Effort develops a total logistics approach to applying advanced decision supports to center's goals well into the next century. Emphasis on cost-effective resourcing for wartime needs, customer choices, and fast, predictable deliveries.</p> <p>#5 ADVANCED TECHNOLOGY INTEGRATOR: Will demonstrate prototypes of new material handling and distribution equipment in DoD depots prior to full scale implementation. Targets are storage, distribution and receiving processes, incorporating automatic identification technologies.</p> <p>#6 INTELLIGENT DEMAND MANAGER: Will demonstrate improved wholesale supply availability that can be attained from real time tracking of spares consumption at the lowest level of the supply system by developing advanced data mining and data visualization technologies.</p> <p>#7 COMPUTER TO COMPUTER NEGOTIATIONS: Will reduce the time to negotiate, award, and modify contracts, to enable DLA and its suppliers to respond rapidly to changes in supply and demand in peace and war by allowing machines to reconcile selected differences between the government and suppliers.</p> <p>#8 PAY PER USE LOGISTICS SYSTEM: Will develop flexible, cost effective alternatives to software development that overcome the delays and expense associated with traditional logistics systems development.</p> <p>#9 AGING AIRCRAFT SUSTAINMENT TECHNOLOGY: Aging systems take progressively more time and money to maintain. This program develops, tests and transfers cost effective logistics support technologies on such systems as B-52, KC-135, and C-130 and other aircraft and related systems that remain in use well beyond their design life.</p>	

UNCLASSIFIED

UNCLASSIFIED

FY 2001 BUDGET REVIEW

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE: SEPTEMBER 1999
APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3	Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATION

#10 VIRTUAL MEDICAL ASSEMBLY: Lower costs in assembly process, by allowing users to accurately visualize form, fit, function and utility before investing large sums of money to procure the assemblies.

#11 FUTURE LOGISTICS R&D REQUIREMENTS: These funds will accelerate the transition of technology to the DLA, so that dramatic improvements in supply support can be undertaken. The alternative is for the Agency to slowly follow in the footsteps of Commercial supply practices, rather than to be the leader in Logistics effectiveness and military readiness.

#12 ON DEMAND MANUFACTURING/CATT: This program has established a network of suppliers and technology for long lead time, difficult to procure, weapons systems spares. FY 00 is the final year of the program.

#13 GULF COAST MARITIME CENTER: Develop simulations based design systems.

#14 COMPETITIVE SUSTAINMENT: This was added by Congress in recognition of the need to substantially reduce the cost of support for aging weapon systems.

#15 DEFENSE MICROELECTRONICS ACTIVITY: Addresses DoD microelectronics problems by redesigning or re-engineering printed wiring assemblies and higher level electronics subsystems.

B. Program Change Summary:

	COST IN MILLIONS		
	FY 99	FY 00	FY 01
President's Budget Submission:	23.718	17.336	19.676
Adjustment to Appropriated Value:	+1.933	+5.916	+3.406
Congressional Rescission:		- .332	
Current Budget Submission:	25.651	22.920	23.082

Change Summary Explanation: FY 99 net adjustment reflects an internal realignment from DARPA to DLA for Gulf Coast Maritime Center (\$1.930 million) and -\$175 thousand in congressional undistributed reductions. FY 00 reflects congressional adds -- +\$6 million for CATT; +\$3 million for the Defense Microelectronics Activity; +\$1 million for competitive sustainment; and (-\$332 thousand) for government-wide rescission and (-\$127 thousand) for inflation adjustments. FY 00 also reflects a below threshold (B/T) reprogramming of funds (-\$3.956 million) from five LOG R&D projects to provide FY 00 funding for the Rapid Acquisition of Manufactured Parts (RAMP) program funded under the IP/ManTech program, PE #07080115. FY 01 reflects re-scoped (project emphasis with increased funding (+\$4 million) for the Material Acquisition Electronics project and (-\$131 thousand) for inflation adjustments.

UNCLASSIFIED

UNCLASSIFIED

FY 2001 BUDGET REVIEW

RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)		DATE: FEBRUARY 2000							
APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3		Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON							
COST (MILLIONS)	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
#1: USER-SOURCE LINK	3.859	2.789	0.000	0.000	0.000	0.000	0.000	0.000	6.648
<p>A. Mission Description and Justification</p> <p>User-Source Link will dramatically change the current logistical system as it exists today. DLA will offer users choices on sourcing, packaging, quality levels and shipping that were previously decided by our Inventory Control Points. The user will also be able to place the order on a pre-negotiated price schedule established by DLA. This will be accomplished by linking the user of parts with the suppliers. The initial phase will involve linking users to suppliers through a set of query servers. This will eliminate the need for suppliers to continually provide product information updates to the Government. Instead, the query servers will go to the suppliers organic product databases and retrieve the information for the user. The final phase of this effort will involve the use of "Agents." Software agents will travel between suppliers catalogs retrieving the information requested by the user without the use of query servers.</p> <p>This project is needed to provide the DoD's customers with the information they need to make an informed buying decision. It will enable DLA to significantly reduce its overhead costs which are ultimately passed on to our customers. More direct vendor deliveries will result from this link which will reduce inventories. The use of suppliers part data will reduce the need for establishing NSNs and other cataloging data. Post-acquisition support problems and the resources necessary to solve them will go down as the users can interactively make their specific requirements known.</p> <p>(U) Program Accomplishments and Plans: (U) FY 1999: Demonstrated capability to use XML business transactions. (U) FY 2000: Final development capability using highly distributed catalogs for EMALL and mechanical requisitions received in bulk from customers. (U) FY 2001: N/A</p>									

UNCLASSIFIED

UNCLASSIFIED

FY 2001 BUDGET REVIEW

RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)		DATE: FEBRUARY 2000																																																							
APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3		Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON																																																							
COST (MILLIONS)	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL																																																
#1: USER-SOURCE LINK	3.859	2.789	0.000	0.000	0.000	0.000	0.000	0.000	6.648																																																
<p>B. Program Change Summary:</p> <table> <tr> <td></td> <td colspan="3">COST IN MILLIONS</td> </tr> <tr> <td></td> <td>FY 99</td> <td>FY 00</td> <td>FY 01</td> </tr> <tr> <td>President's Budget Submission</td> <td>3.888</td> <td>3.848</td> <td>0.000</td> </tr> <tr> <td>Adjustment to Appropriated Value</td> <td>-.029</td> <td>-1.059</td> <td>-----</td> </tr> <tr> <td>Current Budget Submission</td> <td>3.859</td> <td>2.789</td> <td>0.000</td> </tr> </table> <p>Change Summary Explanation: N/A</p> <p>C. Other Program Funding Summary: No funding dependencies on other programs. Related programs: DARPA's Fast program (PE #62301E); DARPA's Advanced Logistics program P.E.</p> <p>D. Schedule Profile: US LINK will test links among DLA Inventory Control Points and Navy/Army/AF customer sites, and private industry.</p> <table> <tr> <td></td> <td>FY 99</td> <td>FY 00</td> <td>FY 01</td> </tr> <tr> <td>Quarters</td> <td>1234</td> <td>1234</td> <td>1234</td> </tr> <tr> <td></td> <td></td> <td></td> <td>N/A</td> </tr> <tr> <td>Phase II: Agent Development Solicitation & Award</td> <td>X</td> <td>X</td> <td></td> </tr> <tr> <td>Phase II: Agent Beta Testing</td> <td>XXX</td> <td></td> <td></td> </tr> <tr> <td>Phase II: XML Demonstrations</td> <td>XX</td> <td></td> <td></td> </tr> <tr> <td>Phase II: Deploy final fully distributed capability</td> <td></td> <td>XXXX</td> <td></td> </tr> </table>											COST IN MILLIONS				FY 99	FY 00	FY 01	President's Budget Submission	3.888	3.848	0.000	Adjustment to Appropriated Value	-.029	-1.059	-----	Current Budget Submission	3.859	2.789	0.000		FY 99	FY 00	FY 01	Quarters	1234	1234	1234				N/A	Phase II: Agent Development Solicitation & Award	X	X		Phase II: Agent Beta Testing	XXX			Phase II: XML Demonstrations	XX			Phase II: Deploy final fully distributed capability		XXXX	
	COST IN MILLIONS																																																								
	FY 99	FY 00	FY 01																																																						
President's Budget Submission	3.888	3.848	0.000																																																						
Adjustment to Appropriated Value	-.029	-1.059	-----																																																						
Current Budget Submission	3.859	2.789	0.000																																																						
	FY 99	FY 00	FY 01																																																						
Quarters	1234	1234	1234																																																						
			N/A																																																						
Phase II: Agent Development Solicitation & Award	X	X																																																							
Phase II: Agent Beta Testing	XXX																																																								
Phase II: XML Demonstrations	XX																																																								
Phase II: Deploy final fully distributed capability		XXXX																																																							

UNCLASSIFIED

UNCLASSIFIED

FY 2001 BUDGET REVIEW

RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)				DATE: FEBRUARY 2000					
APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3				Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON					
COST (MILLIONS)	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
#2: AUTOMATE RULE-BASED DECISIONS	2.276	1.556	0.000	0.000	0.000	0.000	0.000	0.000	3.832

A. Mission Description and Justification

The system being developed under the Automated Rule Based Decision thrust is called DELTA. The DELTA system shall improve DLA's business practices by enabling the DLA to move away from its current business practice of procuring items one requisition at a time (usually as the DLA customers' needs arise). This will be accomplished by:

1. Creation, maintenance, and utilization of an electronic portfolio of best EDI/EC business practices and their related long-term arrangements with suppliers.
2. Enabling the negotiating long-term flexible business arrangements ahead of time with leading industry suppliers and third party supply chain management logistician.
4. Allowing customers to execute purchasing actions interactively against these arrangements.
5. Electronically executing purchasing actions against such arrangements, without human interaction, based on electronically stored source selection rules about customer preferences.
6. Utilizing cutting edge technology (including: knowledge acquisition; expert systems; case based reasoning; natural language processing; CORBA information agents, mediators and sentinels) to accomplish the above.

(U) Program Accomplishments and Plans:

(U) FY 1999:

Demonstrated a leave in place prototype that processes bulk requirements that are mechanically generated by the Service supply systems against government owned inventory and commercially available inventory.

Demonstrated a near-English interface that allows non-technical personnel to establish the business rules for automatically selecting the best from multiple sources of supply.

(U) FY 2000:

Integration of best of commercial practices in Supply Chain Management into the DLA operational business processes via intelligent agent based workflow generation.

(U) FY 2001: N/A

UNCLASSIFIED

UNCLASSIFIED

FY 2001 BUDGET REVIEW

RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)		DATE: FEBRUARY 2000							
APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3		Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON							
COST (MILLIONS)	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
#2: AUTOMATE RULE-BASED DECISIONS	2.276	1.556	0.000	0.000	0.000	0.000	0.000	0.000	3.832

B. Program Change Summary:

	COST IN MILLIONS		
	FY 99	FY 00	FY 01
President's Budget Submission	2.293	2.089	0.000
Adjustment to Appropriated Value	-.017	-.533	-----
Current Budget Submission	2.276	1.556	0.000

Change Summary Explanation: N/A

C. Other Program Funding Summary:

No funding dependencies on other programs.

Related programs: DARPA's Intelligent Integration of Information (I-3) program (PE #62301E) Knowledge Sharing Initiative. DARPA's Advanced Logistics Program (ALP).

D. Schedule Profile:

	FY 99	FY 00	FY 01
QUARTERS	1234	1234	1234

Bulk Requirements processing (government sources) XXXX

Component development and formal process representation of Best Commercial Practices XXXX

Testing and development of Best Commercial Practices XXX

Prototype delivery of automated processes via workflow generation X

UNCLASSIFIED

UNCLASSIFIED

FY 2001 BUDGET REVIEW

RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)				DATE: FEBRUARY 2000						
APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3				Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON						
COST (MILLIONS)	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL	
#3: MATERIAL ACQUISITION: ELECTRONICS	4.948	5.130	9.957	10.147	10.337	10.317	10.273	Cont	Cont	
<p>A. Mission Description and Justification</p> <p>Develop a capability to emulate most obsolete digital integrated circuits (ICs) in the federal catalog using a single, flexible manufacturing line. DoD has estimated that \$2.9B is spent every five years in redesigning circuit card assemblies. Much of these redesigns are driven by IC obsolescence. The commercial suppliers of ICs typically terminate production lines every 18 months, moving on to the next generation of ICs. Because DoD maintains weapons systems much longer than 18 months, this creates an obsolescence problem that can only be overcome through buying excessive inventories of parts before the production lines close or redesigning the next higher assembly to eliminate the obsolete part. DLA, as the manager of over 80% of the IC supply class, must have a capability to manufacture these devices. This project develops this capability and expands it to succeeding generations of obsolete ICs through the Advanced Microcircuit Emulation program.</p> <p>(U) Program Achievements and Plans:</p> <p>(U) FY 1999:</p> <p>Development and demonstration of microcircuits supplied to numerous systems, including: F-15, F-16, Multiple Launch Rocket System, UYK-44, joint Surveillance Target Attack Radar System, Phalanx, distributors, and DSCC (various systems). Successfully developed and demonstrated ASIC characterization and emulation process. Initiated cooperative ASIC emulation with F-15 and Boeing. Became Boeing Preferred Supplier. Demonstrated mixed signal emulation. Next generation emulation array (100K) designed and under fabrication. High Voltage process and emulation part demonstrated. Microprocessor emulation array conceptualized. Developing new process and arrays for high speed, LSI, and VLSI.</p> <p>(U) FY 2000:</p> <p>Demonstrate 100K ASIC with emulation array. Demonstrate advanced high-speed process. Continual cost reduction for ASIC emulation.</p> <p>(U) FY 2001:</p> <p>Demonstrate 200K ASIC emulation array. Demonstrate configurable microprocessor array. Continual cost reduction for ASIC emulation.</p>										

UNCLASSIFIED

UNCLASSIFIED

FY 2001 BUDGET REVIEW

RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)				DATE: FEBRUARY 2000					
APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3				Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON					
COST (MILLIONS)	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
#3: MATERIAL ACQUISITION: ELECTRONICS	4.948	5.130	9.957	10.147	10.337	10.317	10.273	Cont	Cont

B. Program Change Summary:

COST IN MILLIONS

	FY 99	FY 00	FY 01
President's Budget Submission	4.985	5.229	6.013
Adjustment to Appropriated Value	-.037	-.099	+3.944
Current Budget Submission	4.948	5.130	9.957

Change Summary Explanation: FY 01 reflects agency program adjustments. FY 01 and out-years reflect a resource adjustment to compensate for the semiconductor industry's more rapid technology progression. The Semiconductor Industry Association's Roadmap was used for definition of the program requirements. There has been an eight year industry acceleration of microcircuit technology (actual vs. roadmap) from the time when the Advanced Microcircuit Emulation Program was planned. The increased resources allow emulation technology to keep pace with the more rapid technology obsolescence of today's marketplace. The resulting emulation ability will support DSCC and the weapon systems for microcircuits that are not otherwise procurable. Both the percentage of PRs filled and Weapon System readiness levels will increase.

C. Other Program Funding Summary: No funding dependencies on other programs. No related programs.

D. Schedule Profile: The AME Program will eliminate the need to redesign in many cases by producing a form, fit, and function "drop-in" replacement for the old microcircuits using current technology. The Generalized Emulation of Microcircuit (GEM) Production Program addresses the microcircuits built in the 1960s-1970s. The AME Program addresses the 1980s and early 1990s devices.

	FY 99	FY 00	FY 01
Quarters	1234	1234	1234
Mixed Signal Emulation Demonstration	X		
ASIC Characterization process Demonstration	X		
High Voltage Emulation Demonstration	X		
100K Emulation Array Demonstration		X	
Advanced High Speed Process Demonstration		X	
Configurable Microprocessor Array Demonstration			X
200K Emulation Array Demonstration			X
Advanced Emulation Process Demonstration			X
Cost Reduction for ASIC Emulation	XXXX	XXXX	XXXX

UNCLASSIFIED

UNCLASSIFIED

FY 2001 BUDGET REVIEW

RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)		DATE: FEBRUARY 2000							
APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3		Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON							
COST (MILLIONS)	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
#4: ADVANCED TECHNOLOGY LOGISTICS SUPPORT NETWORK	3.760	2.044	1.596	0.000	0.000	0.000	0.000	0.000	7.400
<p>A. Mission Description and Justification</p> <p>Advanced Technology Logistics Support Network initiative is designed to assure the warfighter that readiness is achievable with increasing reliance on commercial inventories and continued government inventory drawdown. It's focus is to demonstrate a readiness decision support system prototype that can assist logisticians in assessing our capability to support peace and wartime requirements. It will develop and utilize direct electronic access to commercial and government asset positions and commercial and government demand history and usage projections. Algorithms will be developed to predict the state of readiness achievable for peacetime or contingency plans, given commercial and government assets and commercial and government usage history and projections. Feedback mechanisms will be developed for contingency re-planning. Feedback mechanisms will also be developed to communicate revised readiness models which will aid in stock level decisions and changes to contractual arrangements with commercial sources to address shortfalls in the state of readiness.</p> <p>The ATSN program has far reaching applicability in allowing DLA and its customers to fully capitalize on the many emerging logistics related information technology advancements. The program will bring this advanced technology to both peacetime customer support and mobilization support. These new technologies are critical elements to the achievement of DLA's programmed out-year savings in conjunction with implementation of reengineering initiatives and acquisition reform.</p> <p>(U) Program Accomplishments and Plans:</p> <p>(U) FY 1999: Established operational prototype model for readiness decision support system for industrial inventories. Developed the capability to estimate commercial capability to support emergency needs for medical pharmaceutical items.</p> <p>(U) FY 2000: Develop production model for readiness decision support. Develop the capability to estimate commercial capability to support emergency needs for all medical pharmaceutical surgical, and equipment items. Expand coverage and readiness models to other commodities. Develop concept of operations, requirements specification for subsistence and industrial commodities.</p> <p>(U) FY 2001: Develop operational and production prototype readiness decision support models for Subsistence and industrial commodities. Expand coverage of readiness model to clothing and textile commodity. Develop concept of operations and requirements specification.</p>									

UNCLASSIFIED

UNCLASSIFIED

FY 2001 BUDGET REVIEW

RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)		DATE: FEBRUARY 2000							
APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3		Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON							
COST (MILLIONS)	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
#4: ADVANCED TECHNOLOGY LOGISTICS SUPPORT NETWORK	3.760	2.044	1.596	0.000	0.000	0.000	0.000	0.000	7.400

B. Program Change Summary:

	COST IN MILLIONS		
	FY 99	FY 00	FY 01
President's Budget Submission	3.789	3.848	1.836
Adjustment to Appropriated Value	-.029	-1.804	-.240
Current Budget Submission	3.760	2.044	1.596

Change Summary Explanation: FY 01 net adjustment reflects agency below threshold program adjustments to accommodate higher priority R&D requirements.

C. Other Program Funding Summary:
No funding dependencies on other programs.
DARPA's FAST program (PE #62301E); DARPA's Intelligent Integration of Information (I-3) (PE #62301E) program.

D. Schedule Profile: DLA's Defense Personnel Supply Center (DPSC) will manage the ATSN program and will implement communications network developed under US Link. Objectives include reduction in customer delivery time variances from 50% to 3%, reduced inventories (both retail & wholesale), on-line requisition status, and lower unit prices.

	FY 99	FY 00	FY 01
Quarters	1234	1234	1234
Operational prototype model	XXXX		
Production model integration - Medical		XXX	
Additional commodities - Subsistence & Industrial, Clothing		XXX	XXXX
Integration with GCCS		XXXX	XXXX

UNCLASSIFIED

UNCLASSIFIED

FY 2001 BUDGET REVIEW

RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)		DATE: FEBRUARY 2000							
APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3		Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON							
COST (MILLIONS)	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
#5: ADVANCED TECHNOLOGY INTEGRATOR	1.842	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.842

A. Mission Description and Justification:

The DoD has pursued material handling and distribution technologies in the past by identifying promising commercial technologies and installing them in our depots, many times in the absence of quantifiable benefits. This has resulted in identified challenges concerning realistic benefits, system interoperability, and resource/personnel capability. The Advanced Technology Integrator will eliminate these problems by providing a "try before you fly" capability where equipment can be simulated in a live depot environment prior to full-scale implementation. A demonstration center would be created. Tasks would be executed by the center in order to fully evaluate promising technologies or new concepts. The impact of the Advanced Technology Integrator would be lower depot overhead costs associated with the receiving, storage, and issuing processes.

(U) Program Achievements and Plans:
 (U) FY 1999:
 Begin data mining activity for advanced supply centers and depot operations.
 (U) FY 2000: N/A
 (U) FY 2001: N/A

B. Program Change Summary:

	COST IN MILLIONS		
	FY 99	FY 00	FY 01
President's Budget Submission	1.855	0.000	0.000
Adjustment to Appropriated Value	-.013	-----	-----
Current Budget Submission	1.842	0.000	0.000

Change Summary Explanation: N/A

UNCLASSIFIED

FY 2001 BUDGET REVIEW

UNCLASSIFIED

UNCLASSIFIED

FY 2001 BUDGET REVIEW

RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)				DATE: FEBRUARY 2000					
APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3				Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON					
COST (MILLIONS)	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
#6: INTELLIGENT DEMAND MANAGER	0.000	0.953	1.733	1.979	2.135	2.179	2.216	Cont	Cont

A. Mission Description and Justification

The use of artificial intelligence for managing items has been explored in the past, but changes in information technology environment and data availability could significantly increase the potential to better manage items and anticipate demands from customers. This will most likely have a significant benefit for the management of Numerical Stock Objective items.

(U) Program Accomplishments and Plans:
 (U) FY 1999: N/A
 (U) FY 2000:
 Analysis tools--Starlight and Data Mining--how can we exploit these technologies to identify relationships that can be used to more accurately project demand--especially on new systems entering the inventory or on proven systems where unforecasted demand may occur due to aging weapon systems. This will require the use of simulation models such as PARIS to evaluate alternate scenarios, cost trade-offs, and inventory management policy decisions.
 (U) FY 2001:
 Distribution resource planning will exploit total asset visibility to make inventory a scheduling problem for replenishment type items. It will be used in commercial applications for high volume/recurring demand items. It anticipates and takes proactive action before demands actually occur.
 Assessment--joint action with the Services to use their multi-echelon, multi-indenture models to project consumable requirements, develop availability curves, determine funding requirements, and project wartime/peacetime demands. Information could "feed" ICIS instead of DLA attempting to develop its own set of models.

B. Program Change Summary:

	COST IN MILLIONS		
	FY 99	FY 00	FY 01
President's Budget Submission	0.000	1.424	1.975
Adjustment to Appropriated Value		-0.471	-.242
Current Budget Submission	0.000	0.953	1.733

Change Summary Explanation: New project in FY 00. FY 01 net adjustment reflects agency below threshold program adjustments to accommodate higher priority R&D requirements.

UNCLASSIFIED

UNCLASSIFIED

FY 2001 BUDGET REVIEW

RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)				DATE: FEBRUARY 2000																																	
APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3				Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON																																	
COST (MILLIONS)	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL																												
#6: INTELLIGENT DEMAND MANAGER	0.000	0.953	1.733	1.979	2.135	2.179	2.216	Cont	Cont																												
<p>C. Other Program Funding Summary: No funding dependencies.</p> <p>D. Schedule Profile:</p> <table style="width:100%; border: none;"> <tr> <td style="width:45%;"></td> <td style="width:15%; text-align: center;">FY 99</td> <td style="width:15%; text-align: center;">FY 00</td> <td style="width:25%; text-align: center;">FY 01</td> </tr> <tr> <td style="padding-left: 40px;">Quarters</td> <td style="text-align: center;">1234</td> <td style="text-align: center;">1234</td> <td style="text-align: center;">1234</td> </tr> <tr> <td>Formulate the BAA announcement</td> <td style="text-align: center;">XX</td> <td></td> <td></td> </tr> <tr> <td>Open the BAA</td> <td style="text-align: center;">XX</td> <td></td> <td></td> </tr> <tr> <td>Awards for concept studies</td> <td></td> <td style="text-align: center;">X</td> <td></td> </tr> <tr> <td>Awards for prototype development</td> <td></td> <td style="text-align: center;">XXX</td> <td></td> </tr> <tr> <td>Prototype development</td> <td></td> <td style="text-align: center;">XXXX</td> <td style="text-align: center;">XXXX</td> </tr> </table>											FY 99	FY 00	FY 01	Quarters	1234	1234	1234	Formulate the BAA announcement	XX			Open the BAA	XX			Awards for concept studies		X		Awards for prototype development		XXX		Prototype development		XXXX	XXXX
	FY 99	FY 00	FY 01																																		
Quarters	1234	1234	1234																																		
Formulate the BAA announcement	XX																																				
Open the BAA	XX																																				
Awards for concept studies		X																																			
Awards for prototype development		XXX																																			
Prototype development		XXXX	XXXX																																		

UNCLASSIFIED

UNCLASSIFIED

FY 2001 BUDGET REVIEW

RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)		DATE: FEBRUARY 2000																							
APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3		Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON																							
COST (MILLIONS)	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL																
#7: COMPUTER TO COMPUTER NEGOTIATIONS	0.000	0.000	2.326	2.987	3.250	3.132	2.225	Cont	Cont																
<p>A. Mission Description and Justification</p> <p>Long lead-times for establishing long-term logistics support contracts do not allow DLA business managers to react to rapidly changing requirements in supply change management. The purpose of this project is to use knowledge base, rule base, and intelligent work flow technologies to enable computers to duplicate the decision making process of humans when negotiating and executing contracts. This will reduce the lead-time required to establish these contracts and contribute to a paperless environment.</p> <p>(U) Program Accomplishments and Plans: (U) FY 1999: N/A (U) FY 2000: N/A (U) FY 2001: Phase I initial identification areas for application/integration of knowledge base, rule base, and intelligent work flow technologies.</p> <p>B. Program Change Summary:</p> <table style="width:100%; margin-left: 40%;"> <tr> <td></td> <td align="right">FY 99</td> <td align="right">FY 00</td> <td align="right">FY 01</td> </tr> <tr> <td>President's Budget Submission</td> <td align="right">0.000</td> <td align="right">0.000</td> <td align="right">2.339</td> </tr> <tr> <td>Adjustment to Appropriated Value</td> <td align="right">-----</td> <td align="right">-----</td> <td align="right">-0.013</td> </tr> <tr> <td>Current Budget Submission</td> <td align="right">0.000</td> <td align="right">0.000</td> <td align="right">2.326</td> </tr> </table> <p>Change Summary Explanation: N/A</p> <p>C. Other Program Funding Summary: No funding dependencies.</p>											FY 99	FY 00	FY 01	President's Budget Submission	0.000	0.000	2.339	Adjustment to Appropriated Value	-----	-----	-0.013	Current Budget Submission	0.000	0.000	2.326
	FY 99	FY 00	FY 01																						
President's Budget Submission	0.000	0.000	2.339																						
Adjustment to Appropriated Value	-----	-----	-0.013																						
Current Budget Submission	0.000	0.000	2.326																						

UNCLASSIFIED

UNCLASSIFIED

FY 2001 BUDGET REVIEW

RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)				DATE: FEBRUARY 2000																										
APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3				Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON																										
COST (MILLIONS)	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL																					
#7: COMPUTER TO COMPUTER NEGOTIATIONS	0.000	0.000	2.326	2.987	3.250	3.132	2.225	Cont	Cont																					
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>D. Schedule Profile:</p> <p style="margin-left: 40px;">Quarters</p> <p>Formulate the BAA announcement</p> <p>Open the BAA</p> <p>Awards for concept studies</p> <p>Awards for prototype development</p> <p>Prototype Development</p> </div> <div style="width: 50%; text-align: center;"> <table style="margin-left: auto; margin-right: auto;"> <tr> <td>FY 99</td> <td>FY 00</td> <td>FY 01</td> </tr> <tr> <td>1234</td> <td>1234</td> <td>1234</td> </tr> <tr> <td></td> <td>XX</td> <td></td> </tr> <tr> <td></td> <td>XX</td> <td></td> </tr> <tr> <td></td> <td></td> <td>X</td> </tr> <tr> <td></td> <td></td> <td>XXX</td> </tr> <tr> <td></td> <td></td> <td>XXXX</td> </tr> </table> </div> </div>										FY 99	FY 00	FY 01	1234	1234	1234		XX			XX				X			XXX			XXXX
FY 99	FY 00	FY 01																												
1234	1234	1234																												
	XX																													
	XX																													
		X																												
		XXX																												
		XXXX																												

UNCLASSIFIED

UNCLASSIFIED

FY 2001 BUDGET REVIEW

RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)				DATE: FEBRUARY 2000					
APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3				Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON					
COST (MILLIONS)	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
#8: PAY PER USE LOGISTICS SYSTEM	0.000	0.000	1.456	2.374	2.402	2.477	1.946	Cont	Cont

A. Mission Description and Justification

Current DoD computer systems are large, inflexible, difficult to maintain and seemingly impossible to keep current with emerging technology. For example, the supply system still uses 80 card column transaction sets based on 40 year old technology. One cause of this stagnation is that these systems are monolithic programs that have evolved over time to meet changing needs. Modernization of these systems has been hindered by the high cost to modernize and the fact that much of the functionality is not well documented or understood.

Emergence of network computing holds the promise of providing the flexibility and modularity needed to incrementally modernize DoD logistics systems and simultaneously provide an opportunity for a radical change in the way computer operations are financed. The Pay Per Use program objective is to demonstrate the costs and flexibility advantages of large scale, highly distributed networks in addressing not only the technical problem associated with logistics systems modernization, but also the cost advantages of designing a system based on the concept of "Pay Per Use". Pay Per Use means that the functional organization using a computer system pays a fixed rate only for actual use of the system. This approach is analogous to the emerging acquisition strategy of "power by the hour", where the Air Force, rather than buying and owning jet engines are paying a set rate per hour for engine use. Similarly, Pay Per Use program users would only be charged for the time that the functional application was actually being used. Ideally, the end user would have choice among different COTS vendors for the same application.

(U) Program Accomplishments and Plans:
 (U) FY 1999: N/A
 (U) FY 2000: N/A
 (U) FY 2001: Initial awards will be made for concept studies. The concepts will be evaluated and prototypes will begin to be developed.

UNCLASSIFIED

UNCLASSIFIED

FY 2001 BUDGET REVIEW

RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)				DATE: FEBRUARY 2000																																																	
APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3				Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON																																																	
COST (MILLIONS)	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL																																												
#8: PAY PER USE LOGISTICS SYSTEM	0.000	0.000	1.456	2.374	2.402	2.477	1.946	Cont	Cont																																												
<p>B. Program Change Summary:</p> <div style="margin-left: 350px;">COST IN MILLIONS</div> <table style="margin-left: 350px; border: none;"> <tr> <td></td> <td style="text-align: right;">FY 99</td> <td style="text-align: right;">FY 00</td> <td style="text-align: right;">FY 01</td> </tr> <tr> <td>President's Budget Submission</td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">1.465</td> </tr> <tr> <td>Adjustment to Appropriated Value</td> <td></td> <td></td> <td style="text-align: right;">-.009</td> </tr> <tr> <td>Current Budget Submission</td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">1.456</td> </tr> </table> <p>Change Summary Explanation: N/A</p> <p>C. Other Program Funding Summary: No funding dependencies.</p> <p>D. Schedule Profile:</p> <table style="margin-left: 350px; border: none;"> <tr> <td></td> <td style="text-align: right;">FY 99</td> <td style="text-align: right;">FY 00</td> <td style="text-align: right;">FY 01</td> </tr> <tr> <td>Quarters</td> <td style="text-align: right;">1234</td> <td style="text-align: right;">1234</td> <td style="text-align: right;">1234</td> </tr> <tr> <td>Formulate the BAA announcement</td> <td></td> <td style="text-align: right;">XX</td> <td></td> </tr> <tr> <td>Open the BAA</td> <td></td> <td style="text-align: right;">XX</td> <td></td> </tr> <tr> <td>Awards for concept studies</td> <td></td> <td></td> <td style="text-align: right;">X</td> </tr> <tr> <td>Awards for prototype development</td> <td></td> <td></td> <td style="text-align: right;">XXX</td> </tr> <tr> <td>Prototype development</td> <td></td> <td></td> <td style="text-align: right;">XXX</td> </tr> </table>											FY 99	FY 00	FY 01	President's Budget Submission	0.000	0.000	1.465	Adjustment to Appropriated Value			-.009	Current Budget Submission	0.000	0.000	1.456		FY 99	FY 00	FY 01	Quarters	1234	1234	1234	Formulate the BAA announcement		XX		Open the BAA		XX		Awards for concept studies			X	Awards for prototype development			XXX	Prototype development			XXX
	FY 99	FY 00	FY 01																																																		
President's Budget Submission	0.000	0.000	1.465																																																		
Adjustment to Appropriated Value			-.009																																																		
Current Budget Submission	0.000	0.000	1.456																																																		
	FY 99	FY 00	FY 01																																																		
Quarters	1234	1234	1234																																																		
Formulate the BAA announcement		XX																																																			
Open the BAA		XX																																																			
Awards for concept studies			X																																																		
Awards for prototype development			XXX																																																		
Prototype development			XXX																																																		

UNCLASSIFIED

UNCLASSIFIED

FY 2001 BUDGET REVIEW

RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)		DATE: FEBRUARY 2000							
APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3		Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON							
COST (MILLIONS)	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
#9: AGING AIRCRAFT SUSTAINMENT TECH.	0.000	0.000	4.051	4.131	4.481	5.164	5.408	Cont	Cont

A. Mission Description and Justification:

Weapon systems, particularly aircraft, are staying in the inventory much longer than originally anticipated. For example, the KC-135 had a 40 year design life and is now planning to stay in service for 86 years. Similar life extensions also apply to the B-52 and the C-130. The result is often aircraft parts, that were never planned to be replaced, have to be procured and placed on the airplane. Unfortunately, the technical data, manufacturing processes and supplier base that originally provided these items are no longer available. These circumstances lead to unacceptably long logistics response times and increased costs.

A completely new strategy is needed to address this problem. It must encompass not only the design associated with re-engineering the item but also manufacturing techniques that can produce very low quantity items in a cost effective manner. A partnership among the DoD, manufacturing industries and academia has proven most effective in addressing the problem. Past models have shown that lead-times can be reduced from 273 days to 97 days for complex parts, new suppliers can be added to the base and costs significantly reduced.

(U) Program Accomplishments and Plans:
 (U) FY 1999: N/A
 (U) FY 2000: N/A
 (U) FY 2001: Based on preliminary studies the technologies needed to sustain aircraft that are in service longer than their design life will be identified. Development of better ways of sustainment will be started.

B. Program Change Summary:

	COST IN MILLIONS		
	FY 99	FY 00	FY 01
President's Budget Submission	0.000	0.000	4.074
Adjustment to Appropriated Value	-----	-----	-0.023
Current Budget Submission	0.000	0.000	4.051

Change Summary Explanation: N/A

UNCLASSIFIED

UNCLASSIFIED

FY 2001 BUDGET REVIEW

RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)		DATE: FEBRUARY 2000							
APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3		Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON							
COST (MILLIONS)	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
#9: AGING AIRCRAFT SUSTAINMENT TECH.	0.000	0.00	4.051	4.131	4.481	5.164	5.408	Cont	Cont
C. Other Program Funding Summary: No funding dependencies.									
D. Schedule Profile:									
Quarters		FY 99 1234	FY 00 1234	FY 01 1234					
Formulate BAA Announcement				X					
Open BAA				XX	XXXX				
Awards for concept development					X				
Awards for prototype development					XXXX				
Prototype Development					XXXX				

UNCLASSIFIED

UNCLASSIFIED

FY 2001 BUDGET REVIEW

RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)				DATE: FEBRUARY 2000					
APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3				Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON					
COST (MILLIONS)	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
#10: VIRTUAL REALITY MEDICAL ASSEMBLY	0.000	0.000	1.963	1.781	2.005	2.039	2.077	Cont	Cont

A. Mission Description and Justification:

Defense Supply Center, Philadelphia (DSCP) has the responsibility to procure Medical Assemblies for the Services. These Medical Assemblies are complex in nature and change frequently to accommodate new types of form, fit, function, and utility. This program will attempt to utilize virtual reality technology to reduce lead times, to reduce the logistics footprint, and to reduce overall assembly life-cycle costs.

DSCP will begin the effort in the FY 01 timeframe. During FY 01, Joint Application Development (JAD) sessions will be held to formalize requirements. Market analysis will be performed to identify the most appropriate virtual reality technology to employ, and detailed system specifications will be created. In FY 02, a prototype of first-aid kits will be developed. In addition, formal requirements will be developed for a more complex medical assembly. In FY 03, the first-aid kit assembly will be made ready for a production environment, the more complex medical assembly will be prototyped, and commercial data interfaces will be established. In FY 04, DSCP will prototype an entire field hospital assembly and will look to apply the technology to other processes within DLA. In FY 05, DSCP plans for full-scale production and demonstrations.

(U) Program Accomplishments and Plans:
 (U) FY 1999: N/A
 (U) FY 2000: N/A
 (U) FY 2001: The studies for Virtual Medical Assembly will be awarded and prototypes will begin to be developed.

B. Program Change Summary: N/A

	COST IN MILLIONS		
	FY 99	FY 00	FY 01
President's Budget Submission	0.000	0.000	1.974
Adjustment to Appropriated Value	-----	-----	-0.011
Current Budget Submission	0.000	0.000	1.963

Change Summary Explanation: N/A

UNCLASSIFIED

UNCLASSIFIED

FY 2001 BUDGET REVIEW

RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)				DATE: FEBRUARY 2000																																	
APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3				Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON																																	
COST (MILLIONS)	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL																												
#10: VIRTUAL REALITY MEDICAL ASSEMBLY	0.000	0.000	1.963	1.781	2.005	2.039	2.077	Cont	Cont																												
<p>C. Other Program Funding Summary: No funding dependencies.</p> <p>D. Schedule Profile:</p> <table> <tr> <td>Quarters</td> <td>FY 99</td> <td>FY 00</td> <td>FY 01</td> </tr> <tr> <td>Formulate the BAA announcement</td> <td>1234</td> <td>1234</td> <td>1234</td> </tr> <tr> <td>Open the BAA</td> <td></td> <td>XX</td> <td></td> </tr> <tr> <td>Awards for concept studies</td> <td></td> <td>XX</td> <td></td> </tr> <tr> <td>Awards for prototype development</td> <td></td> <td></td> <td>X</td> </tr> <tr> <td>Prototype development</td> <td></td> <td></td> <td>XXX</td> </tr> <tr> <td></td> <td></td> <td></td> <td>XXXX</td> </tr> </table>										Quarters	FY 99	FY 00	FY 01	Formulate the BAA announcement	1234	1234	1234	Open the BAA		XX		Awards for concept studies		XX		Awards for prototype development			X	Prototype development			XXX				XXXX
Quarters	FY 99	FY 00	FY 01																																		
Formulate the BAA announcement	1234	1234	1234																																		
Open the BAA		XX																																			
Awards for concept studies		XX																																			
Awards for prototype development			X																																		
Prototype development			XXX																																		
			XXXX																																		

UNCLASSIFIED

UNCLASSIFIED

FY 2001 BUDGET REVIEW

RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)		DATE: FEBRUARY 2000																											
APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3		Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON																											
COST (MILLIONS)	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL																				
#11: FUTURE LOGISTICS R&D REQUIREMENTS	0.000	0.000	0.000	0.000	0.000	0.962	3.499	Cont	Cont																				
<p>A. Mission Description and Justification:</p> <p>These funds will be used for high risk and high payoff alternatives to the conventional investment programs to improve efficiency and lower costs of acquisition, supply management, and distribution.</p> <p>(U) Program Achievements and Plans:</p> <p>(U) FY 1999: N/A (U) FY 2000: N/A (U) FY 2001: N/A</p> <p>B. Program Change Summary:</p> <table> <tr> <td></td> <td colspan="3">COST IN MILLIONS</td> </tr> <tr> <td></td> <td>FY 99</td> <td>FY 00</td> <td>FY 01</td> </tr> <tr> <td>President's Budget Submission</td> <td>0.000</td> <td>0.000</td> <td>0.000</td> </tr> <tr> <td>Adjustment to Appropriated Value</td> <td>-----</td> <td>-----</td> <td>-----</td> </tr> <tr> <td>Current Budget Submission</td> <td>0.000</td> <td>0.000</td> <td>0.000</td> </tr> </table> <p>Change Summary Explanation: N/A</p> <p>C. Other Program Funding Summary: None</p> <p>D. Schedule Profile: N/A</p>											COST IN MILLIONS				FY 99	FY 00	FY 01	President's Budget Submission	0.000	0.000	0.000	Adjustment to Appropriated Value	-----	-----	-----	Current Budget Submission	0.000	0.000	0.000
	COST IN MILLIONS																												
	FY 99	FY 00	FY 01																										
President's Budget Submission	0.000	0.000	0.000																										
Adjustment to Appropriated Value	-----	-----	-----																										
Current Budget Submission	0.000	0.000	0.000																										

UNCLASSIFIED

UNCLASSIFIED

FY 2001 BUDGET REVIEW

RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)		DATE: FEBRUARY 2000							
APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3		Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON							
COST (MILLIONS)	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
#12: ON DEMAND MANUFACTURING/CATT	7.036	6.523	0.000	0.000	0.000	0.000	0.000	0.000	13.381

A. Mission Description and Justification:

This initiative is necessary to identify and establish commercial manufacturing capabilities so that DLA Centers can acquire parts as they are needed (on demand) rather than investing in excessive stock, or risking non-availability of essential parts when needed. Contracting relationships will be established to obtain small quantities of military unique items of low demand, with significantly lower costs and greatly improved response time. This is an effort to use private sector manufacturers, in addition to all other measures to obtain parts quickly. In FY 98 it built a program related to the USAF Computer Aided Technology Transfer (CATT) program. CATT establishes a network of companies to produce parts in a very short production lead-time with minimum administration.

(U) Program Achievements and Plans:
 (U) FY 1999:
 Award model contract for ODM buying capability and capacity field tools for ODM division support.
 (U) FY 2000: Continue capacity field tools for ODM division support.
 (U) FY 2001: N/A

B. Program Change Summary:

	COST IN MILLIONS		
	FY 99	FY 00	FY 01
President's Budget Submission	6.908	0.898	0.000
Adjustments to Appropriated Value	+0.128	+5.625	-----
Current Budget Submission	7.036	6.523	0.000

Change Summary Explanation: N/A

UNCLASSIFIED

UNCLASSIFIED

FY 2001 BUDGET REVIEW

RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)				DATE: FEBRUARY 2000																									
APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3				Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON																									
COST (MILLIONS)	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL																				
#12: ON DEMAND MANUFACTURING/CATT	7.036	6.523	0.000	0.000	0.000	0.000	0.000	0.000	13.381																				
<p>C. Other Program Funding Summary: None</p> <p>D. Schedule Profile:</p> <table style="width:100%; border: none;"> <tr> <td style="width: 45%;"></td> <td style="width: 15%; text-align: center;">FY 99</td> <td style="width: 15%; text-align: center;">FY 00</td> <td style="width: 25%; text-align: center;">FY 01</td> </tr> <tr> <td style="padding-left: 40px;">Quarters</td> <td style="text-align: center;">1234</td> <td style="text-align: center;">1234</td> <td style="text-align: center;">1234</td> </tr> <tr> <td>Continue work at centers to develop contractual vehicles with industry</td> <td style="text-align: center;">XXXX</td> <td style="text-align: center;">XXXX</td> <td></td> </tr> <tr> <td>Begin funding USAF related efforts (CATT)</td> <td style="text-align: center;">X</td> <td></td> <td></td> </tr> <tr> <td>Establish ODM on EMALL</td> <td style="text-align: center;">XXXX</td> <td style="text-align: center;">XXXX</td> <td></td> </tr> </table>											FY 99	FY 00	FY 01	Quarters	1234	1234	1234	Continue work at centers to develop contractual vehicles with industry	XXXX	XXXX		Begin funding USAF related efforts (CATT)	X			Establish ODM on EMALL	XXXX	XXXX	
	FY 99	FY 00	FY 01																										
Quarters	1234	1234	1234																										
Continue work at centers to develop contractual vehicles with industry	XXXX	XXXX																											
Begin funding USAF related efforts (CATT)	X																												
Establish ODM on EMALL	XXXX	XXXX																											

UNCLASSIFIED

UNCLASSIFIED

FY 2001 BUDGET REVIEW

RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)		DATE: FEBRUARY 2000							
APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3		Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON							
COST (MILLIONS)	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
#13: GULF COAST MARITIME	1.930	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.930

A. Mission Description and Justification:

The Gulf Coast Center continued its research, application, and demonstration responsibilities in this effort. The program continued to support industrial, Navy, Defense Advanced Research Project Agency, and Department of Defense initiatives and priorities. The Gulf Coast Center continued to jointly develop projects with industrial partners such as Mobile Offshore Base, the CVX, a portfolio for Ship Designs, and other maritime technology demonstration projects.

(U) FY 1999: Simulation Based Design efforts at the Gulf Coast Region Maritime Technology Center.

*Awarded new contract to Gulf Coast Center to continue Simulation Based Design activities.
 *Maintained state-of-the-art simulated based design with virtual reality technologies.
 *Maintained open, scalable architecture compatible with HLA requirements established by DoD.
 *Established state-of-the-art communications networks to ensure remote site access to the SBD resources as well as distribution to remote sites.
 *Assisted industry, government and academic partners in development of prototype systems related to SBD.
 *Starting to establish a collaborative design and engineering environment such that optimization of multiple functional parameters, including performance, manufacture, operations, logistics, training, cost, and schedule can be performed.
 *Continued to jointly develop projects with industrial partners such as Mobile Offshore Base, support to the CVX, and other maritime technology demonstration projects.

B. Program Change Summary:

	COST IN MILLIONS		
	FY 99	FY 00	FY 01
President's Budget Submission	0.000	0.000	0.000
Adjustment to Appropriated Value	+1.930	-----	-----
Current Budget Submission	1.930	0.000	0.000

Change Summary Explanation: FY 99 \$1.930 increase reflects (\$2.0 million Congressional add, less undistributed reductions) transferred from DARPA to DLA.

UNCLASSIFIED

FY 2001 BUDGET REVIEW

UNCLASSIFIED

UNCLASSIFIED

FY 2001 BUDGET REVIEW

RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)				DATE: FEBRUARY 2000																																													
APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3				Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON																																													
COST (MILLIONS)	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL																																								
#14: COMPETITIVE SUSTAINMENT	0.000	0.982	0.000	0.000	0.000	0.000	0.000	0.000	0.982																																								
<p>A. Mission Description and Justification: Competitive Sustainment was added by Congress in recognition of the need to substantially reduce the cost of support for aging weapon systems. The project will conduct pilot projects that involve teams of Government and Industry members in the following five areas: 1) effective supply partnerships; 2) significant improvement in quality and access to technical data; 3) a streamlined maintenance process; 4) upgrade strategies for increased reliability and 5) innovative training. The goals are to reduce total costs of spares/replacements by 25%, cut the time from requirement to delivery for supplies by up to 75% and cut repair cycle time by at least 50%.</p> <p>(U) Program Accomplishments and Plans: (U) FY 1999: N/A (U) FY 2000: Pilot projects will be initiated (U) FY 2001: N/A</p> <p>B. Program Change Summary:</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td></td> <td align="center" colspan="3">COST IN MILLIONS</td> </tr> <tr> <td></td> <td align="center">FY 99</td> <td align="center">FY 00</td> <td align="center">FY 01</td> </tr> <tr> <td>President's Budget Submission</td> <td align="center">0.000</td> <td align="center">0.000</td> <td align="center">0.000</td> </tr> <tr> <td>Adjustment to Appropriated Value</td> <td align="center">0.000</td> <td align="center">0.982</td> <td align="center">-----</td> </tr> <tr> <td>Current Budget Submission</td> <td align="center">0.000</td> <td align="center">0.982</td> <td align="center">0.000</td> </tr> </table> <p>Change Summary Explanation: FY 00 \$0.982 increase reflects a congressional add for FY 00.</p> <p>C. Other Program Funding Summary: No funding dependencies from other Agencies. Being coordinated with Army and Air Force Sustainment programs.</p> <p>D. Scheduled Profile:</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td></td> <td align="center">FY 99</td> <td align="center">FY 00</td> <td align="center">FY 01</td> </tr> <tr> <td>Quarters</td> <td align="center">1234</td> <td align="center">1234</td> <td align="center">1234</td> </tr> <tr> <td>CBD Announcement</td> <td></td> <td align="center">X</td> <td></td> </tr> <tr> <td>Award</td> <td></td> <td align="center">X</td> <td></td> </tr> <tr> <td>Performance</td> <td></td> <td align="center">X</td> <td align="center">XXXX</td> </tr> </table>											COST IN MILLIONS				FY 99	FY 00	FY 01	President's Budget Submission	0.000	0.000	0.000	Adjustment to Appropriated Value	0.000	0.982	-----	Current Budget Submission	0.000	0.982	0.000		FY 99	FY 00	FY 01	Quarters	1234	1234	1234	CBD Announcement		X		Award		X		Performance		X	XXXX
	COST IN MILLIONS																																																
	FY 99	FY 00	FY 01																																														
President's Budget Submission	0.000	0.000	0.000																																														
Adjustment to Appropriated Value	0.000	0.982	-----																																														
Current Budget Submission	0.000	0.982	0.000																																														
	FY 99	FY 00	FY 01																																														
Quarters	1234	1234	1234																																														
CBD Announcement		X																																															
Award		X																																															
Performance		X	XXXX																																														

UNCLASSIFIED

UNCLASSIFIED

FY 2001 BUDGET REVIEW

RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2 Exhibit)		DATE: FEBRUARY 2000							
APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3		Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON							
COST (MILLIONS)	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
#15: DEFENSE MICROELECTRONICS ACTIVITY	0.000	2.943	0.000	0.000	0.000	0.000	0.000		

A. Mission Description and Justification:

DMEA's mission is to leverage advanced technologies to extend the life of weapon systems. DMEA is the Executive Agent for DOD Integrated Circuit (IC) Microelectronics Diminishing Manufacturing Sources and Material Shortages (DMSMS). As such, DMEA has identified a set of applied research projects that evaluate the feasibility and practicality of some candidate solutions several broad classes of microelectronics components that are strategically important to DOD. DMEA's RDT&E program is comprised of a mix of studies, investigations and planning efforts for developing solutions to the technological challenges of emerging microcircuit obsolescence using leading-edge microelectronics technology.

(U) Program Achievements and Plans:

(U) FY 2000: Continued development of a viable method to deposit ultra-pure silicon, which is the fundamental material for microelectronics and semiconductor devices. Continue to develop methods for replacing highly complex microcircuits using VHDL, modern synthesis tools, programmable cores, and silicon foundry resources to achieve FFF replacements while minimizing design methodologies and processes to emulate digital logic, analog, mixed signal and power microelectronic components. Applies to a wide range of systems e.g., F-22, B-2, AWACS, F-16, F-15, F-14, GPS, USQ-113, JAST, MAST, EA-6B, M-65, AN/TSC-93B, and AN/GSC-49(V).

B. Program Change Summary: FY00 increase of \$2.943 reflects \$3.0 million congressional add less \$.057 million in reductions.

	COST IN MILLIONS		
	FY 99	FY 00	FY 01
President's Budget Submission	0.000	0.000	0.000
Adjustment to Appropriated Value	-----	+2.943	-----
Current Budget Submission	0.000	2.943	0.000

C. Other Program Funding Summary: No funding dependencies on other programs.

D. Schedule Profile:

	<u>FY99</u>	<u>FY00</u>	<u>FY01</u>
Quarters	1234	1234	1234
Ultra-pure Silicon Methodology	xxxx	xxxx	xx
Programmable core Solution Sets	xxxx	xxxx	xxxx

UNCLASSIFIED